

Difenoconazole
PC Code: 128847

Dietary Exposure Assessment

DP#: 367383



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OPP OFFICIAL RECORD
HEALTH EFFECTS DIVISION
SCIENTIFIC DATA REVIEWS
EPA SERIES 361

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

MEMORANDUM

Date: 22-Sept-2009

Subject: **Difenoconazole.** Acute and Chronic Aggregate Dietary Exposure and Risk Assessments for the Section 3 Registration Request for Bulb Vegetables, Brassica Leafy Vegetables, Cucurbit Vegetables, Citrus Fruit, Grape, Pistachios, and Tree Nut.

PC Code: 128847	DP Barcode: 367383
Decision No.: 403560	Registration No.: None
Petition Nos.: 8F7482	Regulatory Action: Section 3
Assessment Type: Single Chemical, Dietary	Registration Case No.: NA
TXR No.: None	CAS No.: 119446-68-3
MRID No.: None	40 CFR: 180.475

Reviewer: Thurston G. Morton, Chemist *Thurston G. Morton*
Risk Assessment Branch IV/Health Effects Division (RABIV/HED; 7509P)

Through: Nancy Dodd, Chemist *Nancy Dodd*
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Dietary Exposure Science Advisory Council (DESAC)

And

for Susan V. Hummel, Senior Chemist *Becky Davis*
RABIV/HED (7509P)

To: Yan Donovan, Risk Assessor
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And

Tony Kish
Fungicide Branch/RD (7505P)

*Review in RAC
11/24/2009
dc*

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Executive Summary

Aggregate (food + water) acute and chronic dietary risk assessments were conducted using the Dietary Exposure Evaluation Model - Food Consumption Intake Database (DEEM-FCID™, ver. 2.03). This model uses food consumption data from the United States Department of Agriculture's (USDA's) Continuing Surveys of Food Intakes by Individuals (CSFII; 1994-1996 and 1998). The analyses were performed to support a Section 3 request for new uses of the fungicide difenoconazole [1-[2-[2-chloro-4-(4-chlorophenoxy)phenyl]-4-methyl-1,3-dioxolan-2-ylmethyl]-1*H*-1,2,4-triazole] in/on bulb vegetables, brassica leafy vegetables, cucurbit vegetables, citrus fruit, grapes, and tree nuts.

The unrefined acute analysis assumed tolerance-level residues, 100% crop treated (CT), and the available empirical or DEEM™ (ver. 7.81) default processing factors. The resulting acute food exposure estimates were less than HED's level of concern (<100% of the acute population-adjusted dose (aPAD)) at the 95th percentile of the exposure distribution for the general U.S. population (7% aPAD) and all population sub-groups; the most highly exposed population subgroup was Children 1-2 years old with 16% aPAD. The somewhat refined chronic analysis assumed tolerance-level residues for some commodities, field trial residues for the majority of commodities, the available empirical or DEEM™ (ver. 7.81) default processing factors, and 100 % CT. The resulting chronic food exposure estimates were less than HED's level of concern (<100% of the chronic population-adjusted dose (cPAD)) for the general U.S. population (17% cPAD) and all population sub-groups; the most highly exposed population subgroup was children 1-2 years old with 44% cPAD.

The aggregate dietary (food + water) acute and chronic dietary exposure analyses for difenoconazole metabolite 1,2,4- triazole (1,2,4-T) from all registered and proposed triazole-based pesticide uses are conducted separately (Memo, T. Morton, D367860, 13-AUG-09) as an update to the previously conducted aggregate dietary exposure risk assessment for 1,2,4-T (Memo, M. Sahafeyan, DP#341803, 30-OCT-07). The updated 1,2,4-T dietary risk, adding the new use sites associated with the subject petition, showed only a very minimal increase from the previous risk estimates and therefore still is not of concern.

The aggregate dietary (food + water) acute and chronic dietary exposure analyses were also conducted separately for difenoconazole metabolites triazole alanine (TA) and triazole acetic acid (TAA) from all registered and proposed triazole-based pesticide uses (Memo, T. Morton, D367860, 13-AUG-09) as an update to the previously conducted aggregate dietary exposure risk assessment for TA + TAA (M. Sahafeyan, DP#344298, 30-OCT-07). The updated TA+TAA dietary risk, adding the new use sites associated with the subject petition, showed only a very minimal increase from the previous risk estimates and therefore still is not of concern.

I. Introduction

Dietary risk assessment incorporates both exposure and toxicity of a given pesticide. For acute and chronic assessments, the risk is expressed as a percentage of a maximum acceptable dose (i.e., the dose which HED has concluded will result in no unreasonable adverse health effects).

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This dose is referred to as the PAD. The PAD is equivalent to the point of departure (POD, NOAEL, LOAEL, e.g.) divided by the required uncertainty or safety factors.

For acute and non-cancer chronic exposures, HED is concerned when estimated dietary risk exceeds 100% of the PAD. HED is generally concerned when estimated cancer risk exceeds one in one million. References which discuss the acute and chronic risk assessments in more detail are available on the EPA/pesticides web site: "Available Information on Assessing Exposure from Pesticides, A User's Guide," 21-JUN-2000, web link: <http://www.epa.gov/fedrgstr/EPA-PEST/2000/July/Day-12/6061.pdf>; or see SOP 99.6 (20-AUG-1999).

The most recent dietary risk assessment for difenoconazole was conducted by M. Sahafeyan (1-MAY-2008; DP#351961).

II. Residue Information

Difenoconazole tolerances are published in 40 CFR§180.475.

Residues of Concern in Plants and Livestock: The HED Metabolism Assessment Review Committee (MARC) has determined that for tolerance expression and risk assessment purposes, the residue of concern is difenoconazole *per se* for plant and livestock commodities. The MARC, however, stated that if tolerances are proposed for difenoconazole resulting from foliar uses which result in higher residue levels of CGA-205375 than parent, then the need to include CGA-205375 should be reconsidered (Memo, G. Kramer, 22-JUL-1994; No DP#). Because the petitioner has now proposed foliar uses of difenoconazole, which result in higher residues in crop commodities, the need to include metabolite CGA 205375 in the tolerance expression and/or risk assessment has been re-examined. Based upon a review of the previously-submitted metabolism data for difenoconazole, HED concludes the residue of concern for both tolerance setting and risk assessment for the crops included in this petition is difenoconazole. However, HED concludes the residue of concern in livestock for tolerance setting and risk assessment are difenoconazole and its metabolite CGA 205375 (for more details, see the summary document, DP# 340379). Table 1 below summarizes tolerance expression and the residues of concern in plant and livestock commodities.

Table 1. Difenoconazole Residues of Concern in Plants and Ruminants.			
Matrix		Residues of Concern	
		For Risk Assessment	For Tolerance Expression
Plants	Primary and Rotational crops	Parent Only	Parent Only
Livestock	Ruminant and Poultry	Parent and CGA 205375	Parent and CGA 205375
Drinking Water		Parent Only	NA

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Recommended Tolerances: Based on the residue chemistry data submitted with the current petitions, HED recommended for establishment of the new food tolerances (DP# 361054, B. Cropp-Kohlligian, 17-Sept-2009). The recommended, established, and revised tolerances are listed in Table 2 below.

Table 2. Tolerance Summary for Difenoconazole.		
Commodity	Existing/Established Tolerances (ppm)	New Recommended Tolerances (ppm)
Almond, nutmeat ¹	0.05	0.03 tree nut
Almond, hulls ¹	5.0	7.0
Brassica subgroup 5A	none	1.9
Brassica subgroup 5B	none	35
Citrus, dried pulp	none	2.5
Citrus oil	none	25
Fruit, citrus, group 10	none	0.6
Grape	0.1	4.0
Grape, raisin	none	6.0
Nut, tree, group 14	none	0.03
Onion, bulb, subgroup 3—07A	none	6.0
Onion, bulb, subgroup 3—07B	none	0.20
Pistachios	none	0.03
Vegetable, cucurbit, group 9 ¹	1.0 individual RACs	0.7
Fruit, Pome, (Group 11)	1.0	-----
Vegetable, Fruiting, Group 8	0.60	-----
Vegetable, Tuberous and Corm, subgroup 1C	0.01	-----
Beet, sugar ²	0.30	-----
Papaya	0.30	-----
Apple, wet pomace	4.5	-----
Beet, sugar, dried pulp	1.9	-----
Potato, processed waste	0.04	-----
Banana	0.2	-----
Barley, grain	0.1	-----
Barley, hay	0.05	-----
Barley, straw	0.05	-----
Canola, seed	0.01	-----
Cattle fat	0.10	-----
Cattle, meat	0.05	-----
Cattle, meat byproducts	0.10	-----
Cattle, liver	0.20	-----
Corn, sweet, forage	0.01	-----
Corn, sweet, kernel plus cob with husks removed	0.01	-----
Corn, sweet, stover	0.01	-----
Cotton, gin byproducts	0.05	-----

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Table 2. Tolerance Summary for Difenoconazole.		
Commodity	Existing/Established Tolerances (ppm)	New Recommended Tolerances (ppm)
Cotton, undelinted seed	0.05	-----
Egg ³	0.10	-----
Goat, fat	0.10	-----
Goat, meat	0.05	-----
Goat, meat byproducts	0.10	-----
Goat, liver	0.20	-----
Hog, fat	0.10	-----
Hog, meat	0.05	-----
Hog, meat byproducts	0.1	-----
Horse, fat	0.10	-----
Horse, meat	0.05	-----
Horse, meat byproducts	0.10	-----
Horse, liver	0.20	-----
Milk	0.01	-----
Papaya	0.30	-----
Rye, grain	0.1	-----
Sheep, fat	0.10	-----
Sheep, meat	0.05	-----
Sheep, meat byproducts	0.10	-----
Sheep, liver	0.20	-----
Wheat, forage	0.1	-----
Wheat, grain	0.1	-----
Wheat, straw	0.1	-----

¹ Section 18 emergency exemption tolerance.² The registered tolerance on sugar beet (0.01 ppm) needs to be changed to 0.3 ppm; see "Notes to RD" in memorandum: M. Sahafeyan, D351715, 07-MAY-08.³ Based on a feeding study, HED recommended the tolerances for poultry commodities (except egg) be removed and the egg tolerance be increased to the current level of 0.1 ppm.

Food Residues and processing factors used in the Acute and Chronic Analysis: The acute analysis assumed tolerance-level residues and 100% CT for all the registered and proposed crops. Tolerance-level residues were also assumed for all livestock tissues in this assessment. The chronic analysis assumed tolerance-level residues for some commodities, field trial residues for the majority of commodities, and 100 % CT. Those commodities where field trial data were used are summarized below. HED SOP 2000.1 *Guidance for Translation of Field Trial Data from Representative Commodities in the Crop Group Regulation to Other Commodities in Each Crop Group/Subgroup* dated 9/12/2000 was used in translating to other commodities in the crop group. Experimental processing factors were used for apple juice (0.04x), grape juice (0.2x), citrus juices (0.1x), potato chips (0.5x), potato granules/flakes (0.5x), raisin (3.5x chronic only), sugar beet molasses (0.6x), sugar beet refined sugar (0.6x), tomato paste (1.6x), and tomato puree (0.5x); DEEMTM (ver. 7.81) default processing factors were assumed for other processed commodities.

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Almond: Field trial residues were used from MRID 47586101.

Apple: Field trial residues were used from MRID 46950233.

Broccoli: Field trial residues were used from MRID 47586102. Residues from 1-7 day PHI were used since registered labels allow from 1-7 day PHIs.

Cabbage: Field trial residues were used from 47586102. Residues from 1-7 day PHI were used since registered labels allow from 1-7 day PHIs. To refine the dietary exposure data from only cabbage samples without wrapper leaves were used.

Cantaloupe: Field trial residues were used from MRID 47586103. Residues from 0-1 day PHI were used since registered labels allow from 0-1 day PHI.

Cucumber: Field trial residues were used from MRID 47586103. Residues from 0-1 day PHI were used since registered labels allow from 0-1 day PHI.

Grape: Field trial residues were used from MRID 47586105.

Grapefruit: Field trial residues were used from MRID 47586104.

Leaf Lettuce: Field trial residues were used from MRIDs 47417703 and 47417706.

Lemon: Field trial residues were used from MRID 47586104.

Lime: Field trial residues were used from MRID 47586104.

Mustard Greens: Field trial residues were used from MRIDs 47417704, 47417707, and 47586102. Residues from 1-7 day PHI were used since registered labels allow from 1-7 day PHIs.

Orange: Field trial residues were used from MRID 47586104.

Pear: Field trial residues were used from MRID 46950233.

Pecan: Field trial residues were used from MRID 47586106.

Peppers: Field trial residues were used from MRID 46950234.

Potato: Field trial residues were used from MRID 46950235.

Sugar Beet: Field trial residues were used from MRID 46950236.

Summer Squash: Field trial residues were used from MRID 47586103. Residues from 0-1 day PHI were used since registered labels allow from 0-1 day PHIs.

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Tomato: Field trial residues were used from MRIDs 46950234, 47417705, and 47417708.

III. Drinking Water Data

The drinking water estimates used in the dietary risk assessment were provided by the Environmental Fate and Effects Division (EFED; Memo, I. Maher, 28-MAY-2009; D361398). EFED conducted a Tier II drinking water assessment from surface water sources using the Pesticide Root Zone/Exposure Analysis Modeling System (PRZM/EXAMS) for the registered and proposed new uses. Among all the registered and proposed new uses, the highest estimated drinking water concentrations (EDWCs) from surface water sources were derived for aerial applications of difenoconazole to New York grapes at the maximum annual application rate of 0.46 lb ai/acre. The estimated drinking water residues for 1-in-10 year annual peak, 1-in-10 year annual mean, and 36-year annual mean are 15.8, 10.4, and 7.62 µg/L (ppb) respectively.

The highest SCI-GROW estimated drinking water concentration of difenoconazole from shallow ground water sources is 1.23×10^{-2} µg/L derived for the maximum proposed application rate to citrus fruit (0.50 lb ai/A), i.e. agricultural uses. Based on the previous drinking water assessment, this estimate is lower than an estimate for non-agricultural uses 1.28×10^{-2} µg/L, obtained for the maximum application rate for ornamentals (0.52 lb ai/A; D333319). These concentrations can be considered as both the acute and chronic values.

IV. DEEM-FCID™ Program and Consumption Information

Difenoconazole acute and chronic dietary exposure assessments were conducted using the DEEM-FCID™ (ver. 2.03), which incorporates consumption data from USDA's CSFII (1994-1996 and 1998). The 1994-96, 98 data are based on the reported consumption of more than 20,000 individuals over two non-consecutive survey days. Foods "as consumed" (e.g., apple pie) are linked to EPA-defined food commodities (e.g., apples, peeled fruit - cooked; fresh or N/S; baked; or wheat flour - cooked; fresh or N/S, baked) using publicly available recipe translation files developed jointly by USDA/ARS and EPA. For chronic exposure assessment, consumption data are averaged for the entire U.S. population and within population subgroups, but for acute exposure assessment are retained as individual consumption events. Based on analysis of the 1994-96, 98 CSFII consumption data, which took into account dietary patterns and survey respondents, HED concluded that it is most appropriate to report risk for the following population subgroups: the general U.S. population, all infants (<1 year old), children 1-2, children 3-5, children 6-12, youth 13-19, adults 20-49, females 13-49, and adults 50+ years old.

For chronic dietary exposure assessment, an estimate of the residue level in each food or food-form (e.g., orange or orange juice) on the food commodity residue list is multiplied by the average daily consumption estimate for that food/food form. The resulting residue consumption estimate for each food/food form is summed with the residue consumption estimates for all other food/food forms on the commodity residue list to arrive at the total average estimated exposure. Exposure is expressed in mg/kg body weight/day and as a percent of the cPAD. This procedure is performed for each population subgroup.

For acute exposure assessments, individual one-day food consumption data are used on an

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individual-by-individual basis. The reported consumption amounts of each food item can be multiplied by a residue point estimate and summed to obtain a total daily pesticide exposure for a deterministic exposure assessment, or “matched” in multiple random pairings with residue values and then summed in a probabilistic assessment. The resulting distribution of exposures is expressed as a percentage of the aPAD on both a user (*i.e.*, those who reported eating relevant commodities/food forms) and a per-capita (*i.e.*, those who reported eating the relevant commodities as well as those who did not) basis. In accordance with HED policy, per capita exposure and risk are reported for all tiers of analysis. However, for Tiers 1 and 2, significant differences in user vs. per capita exposure and risk are identified and noted in the risk assessment.

V. Toxicological Information

On 08-SEP-1998, HED’s Hazard Identification Assessment Review Committee (HIARC) evaluated the toxicology data base of difenoconazole and re-assessed the RfD established in 1994, as well as the toxicological endpoints for the dietary and occupational exposure risk assessments that were selected in 1994. At this meeting, the HIARC also addressed the potential enhanced sensitivity of infants and children from exposure to difenoconazole as required by the Food Quality Protection Act (FQPA) of 1996 (HED Doc. No. 012873, 25-SEP-1998). In July, 2007, the RAB1 toxicologists and risk assessment team met to reevaluate the endpoints selected by the HIARC since new studies were submitted. RAB1 toxicologists and risk assessment team also reevaluated FQPA assessments. The risk assessment team concluded that the default 10x FQPA Safety Factor (SF) be reduced to 1x when assessing acute and chronic dietary exposures (M.Sahafeyan, D333320, 09-AUG-07). The relevant endpoints are shown in Table 3.

For purposes of this action, HED recently reviewed HED’s 27-JUL-1994 Cancer Peer Review Committee (CPRC) report (Memo, Jess Rowland and Esther Rinde) on difenoconazole and the supporting data-evaluation records (DERs). HED concluded that difenoconazole is a very weak carcinogen, showing effects only at excessive doses. In retrospect, the CPRC should have classified this pesticide as a category C with no linear quantification of cancer risk. The cRfD, based on borderline liver effects in male rats at 24.1 mg/kg and a NOAEL of 0.96 mg/kg, would be protective of any carcinogenic effects seen in the mouse (Memo, S. Levy *et al.*, 05-AUG-2005; DP# 319944). Therefore, a separate cancer dietary assessment was *not* conducted for difenoconazole.

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Table 3. Summary of Toxicological Doses and Endpoints for Difenoconazole for Use in Dietary Risk Assessments.

Exposure Scenario	Point of Departure	Uncertainty/FQPA Safety Factors	RfD, PAD, LOC for Risk Assessment	Study and Relevant Toxicological Effects
Acute Dietary (All populations)	NOAEL = 25 mg/kg	UF _A = 10X UF _H = 10X FQPA SF = 1X	aRfD = aPAD = 0.25 mg/kg/day	Acute Neurotoxicity Study in Rats LOAEL = 200 mg/kg in males based on reduced fore-limb grip strength in males on day 1.
Chronic Dietary (All populations)	NOAEL = 0.96 mg/kg/day	UF _A = 10X UF _H = 10X FQPA SF = 1X	cRfD = cPAD = 0.01mg/kg/day	Combined chronic toxicity/carcinogenicity (rat; dietary) LOAEL = 24.1/32.8 mg/kg/day (M/F) based on cumulative decreases in body-weight gains.
Cancer (oral, dermal, inhalation)	Difenoconazole is classified as a Group C, possible human carcinogen with a non-linear (MOE) approach for human risk characterization (CPRC Document, 7/27/94, Memo, P. V. Shah dated March 3, 2007, HED Doc. No. 0054532)			

Point of Departure (POD) = A data point or an estimated point that is derived from observed dose-response data and used to mark the beginning of extrapolation to determine risk associated with lower environmentally relevant human exposures. NOAEL = no observed adverse effect level. LOAEL = lowest observed adverse effect level. UF = uncertainty factor. UF_A = extrapolation from animal to human (interspecies). UF_H = potential variation in sensitivity among members of the human population (intraspecies). FQPA SF = FQPA Safety Factor. PAD = population adjusted dose (a = acute, c = chronic). RfD = reference dose. MOE = margin of exposure. LOC = level of concern.

VI. Results/Discussion

As stated above, for acute and chronic assessments, HED is concerned when dietary risk exceeds 100% of the aPAD or cPAD, respectively. The following paragraphs are summaries of the DEEM-FCID™ (ver. 2.03) acute and chronic exposure analyses.

Acute and chronic aggregate (food + water) analyses were performed using DEEM-FCID™ estimating the dietary exposure of the U.S. population and various population subgroups. The results are summarized in Tables 4 and 5 below for acute and chronic analyses respectively.

The resulting acute food exposure estimates were less than HED's level of concern (<100% aPAD) at the 95th percentile of the exposure distribution for general US population (7% aPAD) and all population sub-groups; the most highly exposed population subgroup was Children 1-2 years old population sub-group with 16% aPAD. The resulting chronic food exposure estimates were less than HED's level of concern (<100% cPAD) for general U.S. population (17% cPAD) and all population sub-groups; the most highly exposed population subgroup was children 1-2 years old with 44% cPAD. A cancer dietary assessment was not conducted for difenoconazole because the cancer NOAEL is higher than the chronic RfD; therefore, the chronic dietary risk estimate is more protective.

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Table 4. Summary of Acute Dietary Exposure and Risk for Difenoconazole at the 95th Percentile.

Population Subgroup	aPAD (mg/kg/day)	Exposure (mg/kg/day)	%aPAD
General U.S. Population	0.25	0.017715	7
All Infants (< 1 year old)		0.025066	10
Children 1-2 years old		0.039605	16
Children 3-5 years old		0.031735	13
Children 6-12 years old		0.017972	7
Youth 13-19 years old		0.008802	4
Adults 20-49 years old		0.013060	5
Adults 50+ years old		0.017260	7
Females 13-49 years old		0.013242	5

The bolded %aPAD is the highest.

Table 5. Summary of Chronic Dietary Exposure and Risk for Difenoconazole.

Population Subgroup	cPAD (mg/kg/day)	Exposure (mg/kg/day)	%cPAD
General U.S. Population	0.01	0.001694	17
All Infants (< 1 year old)		0.002403	24
Children 1-2 years old		0.004440	44
Children 3-5 years old		0.003593	36
Children 6-12 years old		0.002041	20
Youth 13-19 years old		0.001360	14
Adults 20-49 years old		0.001362	14
Adults 50+ years old		0.001538	15
Females 13-49 years old		0.001389	14

The bolded %cPAD is the highest.

VII. Characterization of Inputs/Outputs

The acute analysis assumed tolerance-level residues, 100% CT, and empirical or DEEM™ default processing factors. The chronic analysis assumed tolerance-level residues, for some commodities, field trial residues for the majority of commodities, 100 % CT, and empirical or DEEM™ default processing factors. Therefore, these analyses are considered conservative. They do not warrant the need for further refinement at this time.

VIII. Conclusions

An acute aggregate (food + water) dietary risk assessment was conducted for difenoconazole using the DEEM-FCID™ (ver. 2.03) model and assumed tolerance-level residues, 100% CT, and empirical or DEEM™ default processing factors. The chronic aggregate dietary risk assessment assumed tolerance-level residues for some commodities, field trial residues for the majority of commodities, 100 % CT, and empirical or DEEM™ default processing factors. The resulting acute and chronic aggregate exposure estimates were less than HED's level of concern. For the

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general U.S. population, the aPAD and cPAD were 7% and 17%, respectively. The most highly-exposed population subgroups in the acute (at the 95th percentile of the exposure distribution) and chronic analyses were Children 1-2 years old (16% aPAD) and children 1-2 years old (44% cPAD) respectively.

IX. Attachments

- Attachment 1: DEEM-FCID™ Acute Residue File
- Attachment 2: DEEM-FCID™ Acute Exposure Estimates
- Attachment 3: DEEM-FCID™ Chronic Residue File
- Attachment 4: DEEM-FCID™ Chronic Exposure Estimates

cc with all attachments: T. Morton (RABIV)
RDI: P. Yvonne Barnes and Nancy Dodd - DESAC (4-Aug-2009)
Petition Number(s): PP#8F7482
DP#: 367383
PC Code: 128847
T. Morton:S10922:PY1:(703)305-6691

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Attachment 1: DEEM-FCID™ Acute Residue File

Filename: C:\Documents and Settings\tmorton\My Documents\MyFiles\Triazole Assessment for Difenoconazole\difenoconazole_acute-07-09.R98

Chemical: Difenoconazole

RfD(Chronic): .01 mg/kg bw/day NOEL(Chronic): 0 mg/kg bw/day

RfD(Acute): .25 mg/kg bw/day NOEL(Acute): 0 mg/kg bw/day

Date created/last modified: 07-28-2009/06:40:16/8

Program ver. 2.03

EPA Code	Crop Grp	Commodity Name	Def Res (ppm)	Adj. Factors #1	Adj. Factors #2	Comment
95000230	O	Banana	0.200000	1.000	1.000	
95000231	O	Banana-babyfood	0.200000	1.000	1.000	
95000240	O	Banana, dried	0.200000	3.900	1.000	
95000241	O	Banana, dried-babyfood	0.200000	3.900	1.000	
95001280	O	Cottonseed, oil	0.050000	1.000	1.000	
95001281	O	Cottonseed, oil-babyfood	0.050000	1.000	1.000	
95001750	O	Grape	4.000000	1.000	1.000	
95001760	O	Grape, juice	4.000000	0.200	1.000	
95001761	O	Grape, juice-babyfood	4.000000	0.200	1.000	
95001770	O	Grape, leaves	4.000000	1.000	1.000	
95001780	O	Grape, raisin	6.000000	1.000	1.000	
95001790	O	Grape, wine and sherry	4.000000	1.000	1.000	
95002450	O	Papaya	0.300000	1.000	1.000	
95002451	O	Papaya-babyfood	0.300000	1.000	1.000	
95002460	O	Papaya, dried	0.300000	1.800	1.000	
95002470	O	Papaya, juice	0.300000	1.500	1.000	
95002830	O	Plantain	0.200000	1.000	1.000	
95002840	O	Plantain, dried	0.200000	3.900	1.000	
86010000	O	Water, direct, all sources	0.015800	1.000	1.000	
86020000	O	Water, indirect, all sources	0.015800	1.000	1.000	
21000440	M	Beef, meat	0.050000	1.000	1.000	
21000441	M	Beef, meat-babyfood	0.050000	1.000	1.000	
21000450	M	Beef, meat, dried	0.050000	1.920	1.000	
21000460	M	Beef, meat byproducts	0.100000	1.000	1.000	
21000461	M	Beef, meat byproducts-babyfood	0.100000	1.000	1.000	
21000470	M	Beef, fat	0.100000	1.000	1.000	
21000471	M	Beef, fat-babyfood	0.100000	1.000	1.000	
21000480	M	Beef, kidney	0.100000	1.000	1.000	
21000490	M	Beef, liver	0.200000	1.000	1.000	
21000491	M	Beef, liver-babyfood	0.200000	1.000	1.000	
23001690	M	Goat, meat	0.050000	1.000	1.000	
23001700	M	Goat, meat byproducts	0.100000	1.000	1.000	
23001710	M	Goat, fat	0.100000	1.000	1.000	
23001720	M	Goat, kidney	0.100000	1.000	1.000	
23001730	M	Goat, liver	0.200000	1.000	1.000	
24001890	M	Horse, meat	0.050000	1.000	1.000	
25002900	M	Pork, meat	0.050000	1.000	1.000	
25002901	M	Pork, meat-babyfood	0.050000	1.000	1.000	
25002910	M	Pork, skin	0.100000	1.000	1.000	
25002920	M	Pork, meat byproducts	0.100000	1.000	1.000	
25002921	M	Pork, meat byproducts-babyfood	0.100000	1.000	1.000	
25002930	M	Pork, fat	0.100000	1.000	1.000	
25002931	M	Pork, fat-babyfood	0.100000	1.000	1.000	
25002940	M	Pork, kidney	0.100000	1.000	1.000	
25002950	M	Pork, liver	0.200000	1.000	1.000	
26003390	M	Sheep, meat	0.050000	1.000	1.000	
26003391	M	Sheep, meat-babyfood	0.050000	1.000	1.000	
26003400	M	Sheep, meat byproducts	0.100000	1.000	1.000	
26003410	M	Sheep, fat	0.100000	1.000	1.000	
26003411	M	Sheep, fat-babyfood	0.100000	1.000	1.000	
26003420	M	Sheep, kidney	0.100000	1.000	1.000	
26003430	M	Sheep, liver	0.200000	1.000	1.000	
70001450	P	Egg, whole	0.100000	1.000	1.000	
70001451	P	Egg, whole-babyfood	0.100000	1.000	1.000	
70001460	P	Egg, white	0.100000	1.000	1.000	
70001461	P	Egg, white (solids)-babyfood	0.100000	1.000	1.000	
70001470	P	Egg, yolk	0.100000	1.000	1.000	
70001471	P	Egg, yolk-babyfood	0.100000	1.000	1.000	
27002220	D	Milk, fat	0.010000	1.000	1.000	
27002221	D	Milk, fat - baby food/infant for	0.010000	1.000	1.000	
27012230	D	Milk, nonfat solids	0.010000	1.000	1.000	
27012231	D	Milk, nonfat solids-baby food/in	0.010000	1.000	1.000	
27022240	D	Milk, water	0.010000	1.000	1.000	

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27022241	D	Milk, water-babyfood/infant form	0.010000	1.000	1.000
27032251	D	Milk, sugar (lactose)-baby food/	0.010000	1.000	1.000
01010520	1A	Beet, sugar	0.300000	1.000	1.000
01010521	1A	Beet, sugar-babyfood	0.300000	1.000	1.000
01010530	1A	Beet, sugar, molasses	0.300000	0.600	1.000
01010531	1A	Beet, sugar, molasses-babyfood	0.300000	0.600	1.000
01032960	1C	Potato, chips	0.010000	0.500	1.000
01032970	1C	Potato, dry (granules/ flakes)	0.010000	0.500	1.000
01032971	1C	Potato, dry (granules/ flakes)-b	0.010000	0.500	1.000
01032980	1C	Potato, flour	0.010000	1.000	1.000
01032981	1C	Potato, flour-babyfood	0.010000	1.000	1.000
01032990	1C	Potato, tuber, w/peel	0.010000	1.000	1.000
01032991	1C	Potato, tuber, w/peel-babyfood	0.010000	1.000	1.000
01033000	1C	Potato, tuber, w/o peel	0.010000	1.000	1.000
01033001	1C	Potato, tuber, w/o peel-babyfood	0.010000	1.000	1.000
03001640	3	Garlic	0.200000	1.000	1.000
03001650	3	Garlic, dried	0.200000	1.000	1.000
03001651	3	Garlic, dried-babyfood	0.200000	1.000	1.000
03001980	3	Leek	6.000000	1.000	1.000
03002370	3	Onion, dry bulb	0.200000	1.000	1.000
03002371	3	Onion, dry bulb-babyfood	0.200000	1.000	1.000
03002380	3	Onion, dry bulb, dried	0.200000	1.000	1.000
03002381	3	Onion, dry bulb, dried-babyfood	0.200000	1.000	1.000
03002390	3	Onion, green	6.000000	1.000	1.000
03003380	3	Shallot	0.200000	1.000	1.000
05010610	5A	Broccoli	1.900000	1.000	1.000
05010611	5A	Broccoli-babyfood	1.900000	1.000	1.000
05010620	5A	Broccoli, Chinese	1.900000	1.000	1.000
05020630	5B	Broccoli raab	35.000000	1.000	1.000
05010640	5A	Brussels sprouts	1.900000	1.000	1.000
05010690	5A	Cabbage	1.900000	1.000	1.000
05020700	5B	Cabbage, Chinese, bok choy	35.000000	1.000	1.000
05010710	5A	Cabbage, Chinese, napa	1.900000	1.000	1.000
05010720	5A	Cabbage, Chinese, mustard	1.900000	1.000	1.000
05010830	5A	Cauliflower	1.900000	1.000	1.000
05021170	5B	Collards	35.000000	1.000	1.000
05021940	5B	Kale	35.000000	1.000	1.000
05011960	5A	Kohlrabi	1.900000	1.000	1.000
05022290	5B	Mustard greens	35.000000	1.000	1.000
05023180	5B	Rape greens	35.000000	1.000	1.000
05023890	5B	Turnip, greens	35.000000	1.000	1.000
08002340	8	Okra	0.600000	1.000	1.000
08002700	8	Pepper, bell	0.600000	1.000	1.000
08002701	8	Pepper, bell-babyfood	0.600000	1.000	1.000
08002710	8	Pepper, bell, dried	0.600000	1.000	1.000
08002711	8	Pepper, bell, dried-babyfood	0.600000	1.000	1.000
08002720	8	Pepper, nonbell	0.600000	1.000	1.000
08002721	8	Pepper, nonbell-babyfood	0.600000	1.000	1.000
08002730	8	Pepper, nonbell, dried	0.600000	1.000	1.000
08003740	8	Tomatillo	0.600000	1.000	1.000
08003750	8	Tomato	0.600000	1.000	1.000
08003751	8	Tomato-babyfood	0.600000	1.000	1.000
08003760	8	Tomato, paste	0.600000	1.600	1.000
08003761	8	Tomato, paste-babyfood	0.600000	1.600	1.000
08003770	8	Tomato, puree	0.600000	0.500	1.000
08003771	8	Tomato, puree-babyfood	0.600000	0.500	1.000
08003780	8	Tomato, dried	0.600000	14.300	1.000
08003781	8	Tomato, dried-babyfood	0.600000	14.300	1.000
08003790	8	Tomato, juice	0.600000	1.500	1.000
09020210	9B	Balsam pear	0.700000	1.000	1.000
09010750	9A	Cantaloupe	0.700000	1.000	1.000
09010800	9A	Casaba	0.700000	1.000	1.000
09020880	9B	Chayote, fruit	0.700000	1.000	1.000
09021020	9B	Chinese waxgourd	0.700000	1.000	1.000
09021350	9B	Cucumber	0.700000	1.000	1.000
09011870	9A	Honeydew melon	0.700000	1.000	1.000
09023080	9B	Pumpkin	0.700000	1.000	1.000
09023090	9B	Pumpkin, seed	0.700000	1.000	1.000
09023560	9B	Squash, summer	0.700000	1.000	1.000
09023561	9B	Squash, summer-babyfood	0.700000	1.000	1.000
09023570	9B	Squash, winter	0.700000	1.000	1.000
09023571	9B	Squash, winter-babyfood	0.700000	1.000	1.000
09013990	9A	Watermelon	0.700000	1.000	1.000
09014000	9A	Watermelon, juice	0.700000	1.000	1.000
10001060	10	Citrus citron	0.600000	1.000	1.000
10001070	10	Citrus hybrids	0.600000	1.000	1.000
10001080	10	Citrus, oil	25.000000	1.000	1.000

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10001800	10	Grapefruit	0.600000	1.000	1.000
10001810	10	Grapefruit, juice	0.600000	0.100	1.000
10001970	10	Kumquat	0.600000	1.000	1.000
10001990	10	Lemon	0.600000	1.000	1.000
10002000	10	Lemon, juice	0.600000	0.100	1.000
10002001	10	Lemon, juice-babyfood	0.600000	0.100	1.000
10002010	10	Lemon, peel	0.600000	1.000	1.000
10002060	10	Lime	0.600000	1.000	1.000
10002070	10	Lime, juice	0.600000	0.100	1.000
10002071	10	Lime, juice-babyfood	0.600000	0.100	1.000
10002400	10	Orange	0.600000	1.000	1.000
10002410	10	Orange, juice	0.600000	0.100	1.000
10002411	10	Orange, juice-babyfood	0.600000	0.100	1.000
10002420	10	Orange, peel	0.600000	1.000	1.000
10003070	10	Pummelo	0.600000	1.000	1.000
10003690	10	Tangerine	0.600000	1.000	1.000
10003700	10	Tangerine, juice	0.600000	0.100	1.000
11000070	11	Apple, fruit with peel	1.000000	1.000	1.000
11000080	11	Apple, peeled fruit	1.000000	1.000	1.000
11000081	11	Apple, peeled fruit-babyfood	1.000000	1.000	1.000
11000090	11	Apple, dried	1.000000	8.000	1.000
11000091	11	Apple, dried-babyfood	1.000000	8.000	1.000
11000100	11	Apple, juice	1.000000	0.040	1.000
11000101	11	Apple, juice-babyfood	1.000000	0.040	1.000
11000110	11	Apple, sauce	1.000000	1.000	1.000
11000111	11	Apple, sauce-babyfood	1.000000	1.000	1.000
11001290	11	Crabapple	1.000000	1.000	1.000
11002100	11	Loquat	1.000000	1.000	1.000
11002660	11	Pear	1.000000	1.000	1.000
11002661	11	Pear-babyfood	1.000000	1.000	1.000
11002670	11	Pear, dried	1.000000	6.250	1.000
11002680	11	Pear, juice	1.000000	1.000	1.000
11002681	11	Pear, juice-babyfood	1.000000	1.000	1.000
11003100	11	Quince	1.000000	1.000	1.000
14000030	14	Almond	0.030000	1.000	1.000
14000031	14	Almond-babyfood	0.030000	1.000	1.000
14000040	14	Almond, oil	0.030000	1.000	1.000
14000041	14	Almond, oil-babyfood	0.030000	1.000	1.000
14000590	14	Brazil nut	0.030000	1.000	1.000
14000680	14	Butternut	0.030000	1.000	1.000
14000810	14	Cashew	0.030000	1.000	1.000
14000920	14	Chestnut	0.030000	1.000	1.000
14001550	14	Filbert	0.030000	1.000	1.000
14001560	14	Filbert, oil	0.030000	1.000	1.000
14001850	14	Hickory nut	0.030000	1.000	1.000
14002130	14	Macadamia nut	0.030000	1.000	1.000
14002690	14	Pecan	0.030000	1.000	1.000
14002820	14	Pistachio	0.030000	1.000	1.000
14003910	14	Walnut	0.030000	1.000	1.000
15000250	15	Barley, pearled barley	0.100000	1.000	1.000
15000251	15	Barley, pearled barley-babyfood	0.100000	1.000	1.000
15000260	15	Barley, flour	0.100000	1.000	1.000
15000261	15	Barley, flour-babyfood	0.100000	1.000	1.000
15000270	15	Barley, bran	0.100000	1.000	1.000
15001270	15	Corn, sweet	0.010000	1.000	1.000
15001271	15	Corn, sweet-babyfood	0.010000	1.000	1.000
15003280	15	Rye, grain	0.100000	1.000	1.000
15003290	15	Rye, flour	0.100000	1.000	1.000
15004010	15	Wheat, grain	0.100000	1.000	1.000
15004011	15	Wheat, grain-babyfood	0.100000	1.000	1.000
15004020	15	Wheat, flour	0.100000	1.000	1.000
15004021	15	Wheat, flour-babyfood	0.100000	1.000	1.000
15004030	15	Wheat, germ	0.100000	1.000	1.000
15004040	15	Wheat, bran	0.100000	1.000	1.000

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Attachment 2: DEEM-FCID™ Acute Exposure Estimates

U.S. Environmental Protection Agency Ver. 2.02
DEEM-FCID ACUTE Analysis for DIFENOCONAZOLE (1994-98 data)
Residue file: difenoconazole_acute-07-09.R98 Adjustment factor #2 NOT used.
Analysis Date: 07-28-2009/07:08:48 Residue file dated: 07-28-2009/06:40:16/8
Daily totals for food and foodform consumption used.
Run Comment: ""
=====

Summary calculations (per capita):

	95th Percentile		99th Percentile		99.9th Percentile	
	Exposure	% aRfD	Exposure	% aRfD	Exposure	% aRfD
U.S. Population:	0.017715	7.09	0.051438	20.58	0.142179	56.87
All infants:	0.025066	10.03	0.040303	16.12	0.118877	47.55
Children 1-2 yrs:	0.039605	15.84	0.087536	35.01	0.253375	101.35
Children 3-5 yrs:	0.031735	12.69	0.070148	28.06	0.372373	148.95
Children 6-12 yrs:	0.017972	7.19	0.039096	15.64	0.148180	59.27
Youth 13-19 yrs:	0.008802	3.52	0.039648	15.86	0.138738	55.50
Adults 20-49 yrs:	0.013060	5.22	0.041884	16.75	0.109769	43.91
Adults 50+ yrs:	0.017260	6.90	0.062895	25.16	0.138270	55.31
Females 13-49 yrs:	0.013242	5.30	0.041877	16.75	0.116989	46.80

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Attachment 3: DEEM-FCID™ Chronic Residue File

Filename: C:\Documents and Settings\tmorton\My Documents\MyFiles\Triazole
Assessment for Difenoconazole\difenoconazole_chronic-08-04AverageFT.R98
Chemical: Difenoconazole
RfD(Chronic): .01 mg/kg bw/day NOEL(Chronic): 0 mg/kg bw/day
RfD(Acute): .25 mg/kg bw/day NOEL(Acute): 0 mg/kg bw/day
Date created/last modified: 08-04-2009/09:25:01/8 Program ver. 2.03

EPA Code	Crop Grp	Commodity Name	Def Res (ppm)	Adj.Factors #1	Adj.Factors #2	Comment
95000230	O	Banana	0.200000	1.000	1.000	
95000231	O	Banana-babyfood	0.200000	1.000	1.000	
95000240	O	Banana, dried	0.200000	3.900	1.000	
95000241	O	Banana, dried-babyfood	0.200000	3.900	1.000	
95001280	O	Cottonseed, oil	0.050000	1.000	1.000	
95001281	O	Cottonseed, oil-babyfood	0.050000	1.000	1.000	
95001750	O	Grape	0.613000	1.000	1.000	
95001760	O	Grape, juice	0.613000	0.200	1.000	
95001761	O	Grape, juice-babyfood	0.613000	0.200	1.000	
95001770	O	Grape, leaves	0.613000	1.000	1.000	
95001780	O	Grape, raisin	0.613000	3.500	1.000	
95001790	O	Grape, wine and sherry	0.613000	1.000	1.000	
95002450	O	Papaya	0.300000	1.000	1.000	
95002451	O	Papaya-babyfood	0.300000	1.000	1.000	
95002460	O	Papaya, dried	0.300000	1.800	1.000	
95002470	O	Papaya, juice	0.300000	1.500	1.000	
95002830	O	Plantain	0.200000	1.000	1.000	
95002840	O	Plantain, dried	0.200000	3.900	1.000	
86010000	O	Water, direct, all sources	0.010400	1.000	1.000	
86020000	O	Water, indirect, all sources	0.010400	1.000	1.000	
21000440	M	Beef, meat	0.050000	1.000	1.000	
21000441	M	Beef, meat-babyfood	0.050000	1.000	1.000	
21000450	M	Beef, meat, dried	0.050000	1.920	1.000	
21000460	M	Beef, meat byproducts	0.100000	1.000	1.000	
21000461	M	Beef, meat byproducts-babyfood	0.100000	1.000	1.000	
21000470	M	Beef, fat	0.100000	1.000	1.000	
21000471	M	Beef, fat-babyfood	0.100000	1.000	1.000	
21000480	M	Beef, kidney	0.100000	1.000	1.000	
21000490	M	Beef, liver	0.200000	1.000	1.000	
21000491	M	Beef, liver-babyfood	0.200000	1.000	1.000	
23001690	M	Goat, meat	0.050000	1.000	1.000	
23001700	M	Goat, meat byproducts	0.100000	1.000	1.000	
23001710	M	Goat, fat	0.100000	1.000	1.000	
23001720	M	Goat, kidney	0.100000	1.000	1.000	
23001730	M	Goat, liver	0.200000	1.000	1.000	
24001890	M	Horse, meat	0.050000	1.000	1.000	
25002900	M	Pork, meat	0.050000	1.000	1.000	
25002901	M	Pork, meat-babyfood	0.050000	1.000	1.000	
25002910	M	Pork, skin	0.100000	1.000	1.000	
25002920	M	Pork, meat byproducts	0.100000	1.000	1.000	
25002921	M	Pork, meat byproducts-babyfood	0.100000	1.000	1.000	
25002930	M	Pork, fat	0.100000	1.000	1.000	
25002931	M	Pork, fat-babyfood	0.100000	1.000	1.000	
25002940	M	Pork, kidney	0.100000	1.000	1.000	
25002950	M	Pork, liver	0.200000	1.000	1.000	
26003390	M	Sheep, meat	0.050000	1.000	1.000	
26003391	M	Sheep, meat-babyfood	0.050000	1.000	1.000	
26003400	M	Sheep, meat byproducts	0.100000	1.000	1.000	
26003410	M	Sheep, fat	0.100000	1.000	1.000	
26003411	M	Sheep, fat-babyfood	0.100000	1.000	1.000	
26003420	M	Sheep, kidney	0.100000	1.000	1.000	
26003430	M	Sheep, liver	0.200000	1.000	1.000	
70001450	P	Egg, whole	0.100000	1.000	1.000	
70001451	P	Egg, whole-babyfood	0.100000	1.000	1.000	
70001460	P	Egg, white	0.100000	1.000	1.000	
70001461	P	Egg, white (solids)-babyfood	0.100000	1.000	1.000	
70001470	P	Egg, yolk	0.100000	1.000	1.000	
70001471	P	Egg, yolk-babyfood	0.100000	1.000	1.000	
27002220	D	Milk, fat	0.010000	1.000	1.000	
27002221	D	Milk, fat - baby food/infant for	0.010000	1.000	1.000	
27012230	D	Milk, nonfat solids	0.010000	1.000	1.000	
27012231	D	Milk, nonfat solids-baby food/in	0.010000	1.000	1.000	
27022240	D	Milk, water	0.010000	1.000	1.000	

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27022241	D	Milk, water-babyfood/infant form	0.010000	1.000	1.000
27032251	D	Milk, sugar (lactose)-baby food/	0.010000	1.000	1.000
01010520	1A	Beet, sugar	0.300000	1.000	1.000
01010521	1A	Beet, sugar-babyfood	0.300000	1.000	1.000
01010530	1A	Beet, sugar, molasses	0.300000	0.600	1.000
01010531	1A	Beet, sugar, molasses-babyfood	0.300000	0.600	1.000
01032960	1C	Potato, chips	0.005000	0.500	1.000
01032970	1C	Potato, dry (granules/ flakes)	0.005000	0.500	1.000
01032971	1C	Potato, dry (granules/ flakes)-b	0.005000	0.500	1.000
01032980	1C	Potato, flour	0.005000	1.000	1.000
01032981	1C	Potato, flour-babyfood	0.005000	1.000	1.000
01032990	1C	Potato, tuber, w/peel	0.005000	1.000	1.000
01032991	1C	Potato, tuber, w/peel-babyfood	0.005000	1.000	1.000
01033000	1C	Potato, tuber, w/o peel	0.005000	1.000	1.000
01033001	1C	Potato, tuber, w/o peel-babyfood	0.005000	1.000	1.000
03001640	3	Garlic	0.200000	1.000	1.000
03001650	3	Garlic, dried	0.200000	1.000	1.000
03001651	3	Garlic, dried-babyfood	0.200000	1.000	1.000
03001980	3	Leek	6.000000	1.000	1.000
03002370	3	Onion, dry bulb	0.200000	1.000	1.000
03002371	3	Onion, dry bulb-babyfood	0.200000	1.000	1.000
03002380	3	Onion, dry bulb, dried	0.200000	1.000	1.000
03002381	3	Onion, dry bulb, dried-babyfood	0.200000	1.000	1.000
03002390	3	Onion, green	6.000000	1.000	1.000
03003380	3	Shallot	0.200000	1.000	1.000
05010610	5A	Broccoli	0.221000	1.000	1.000
05010611	5A	Broccoli-babyfood	0.221000	1.000	1.000
05010620	5A	Broccoli, Chinese	0.221000	1.000	1.000
05020630	5B	Broccoli raab	5.100000	1.000	1.000
05010640	5A	Brussels sprouts	29.000000	1.000	1.000
05010690	5A	Cabbage	0.029000	1.000	1.000
05020700	5B	Cabbage, Chinese, bok choy	5.100000	1.000	1.000
05010710	5A	Cabbage, Chinese, napa	0.029000	1.000	1.000
05010720	5A	Cabbage, Chinese, mustard	0.221000	1.000	1.000
05010830	5A	Cauliflower	0.221000	1.000	1.000
05021170	5B	Collards	5.100000	1.000	1.000
05021940	5B	Kale	5.100000	1.000	1.000
05011960	5A	Kohlrabi	0.029000	1.000	1.000
05022290	5B	Mustard greens	5.100000	1.000	1.000
05023180	5B	Rape greens	5.100000	1.000	1.000
05023890	5B	Turnip, greens	5.100000	1.000	1.000
08002340	8	Okra	0.600000	1.000	1.000
08002700	8	Pepper, bell	0.133000	1.000	1.000
08002701	8	Pepper, bell-babyfood	0.133000	1.000	1.000
08002710	8	Pepper, bell, dried	0.133000	1.000	1.000
08002711	8	Pepper, bell, dried-babyfood	0.133000	1.000	1.000
08002720	8	Pepper, nonbell	0.133000	1.000	1.000
08002721	8	Pepper, nonbell-babyfood	0.133000	1.000	1.000
08002730	8	Pepper, nonbell, dried	0.133000	1.000	1.000
08003740	8	Tomatillo	0.165000	1.000	1.000
08003750	8	Tomato	0.165000	1.000	1.000
08003751	8	Tomato-babyfood	0.165000	1.000	1.000
08003760	8	Tomato, paste	0.165000	1.600	1.000
08003761	8	Tomato, paste-babyfood	0.165000	1.600	1.000
08003770	8	Tomato, puree	0.165000	0.500	1.000
08003771	8	Tomato, puree-babyfood	0.165000	0.500	1.000
08003780	8	Tomato, dried	0.165000	14.300	1.000
08003781	8	Tomato, dried-babyfood	0.165000	14.300	1.000
08003790	8	Tomato, juice	0.165000	1.500	1.000
09020210	9B	Balsam pear	0.055000	1.000	1.000
09010750	9A	Cantaloupe	0.137000	1.000	1.000
09010800	9A	Casaba	0.137000	1.000	1.000
09020880	9B	Chayote, fruit	0.310000	1.000	1.000
09021020	9B	Chinese waxgourd	0.055000	1.000	1.000
09021350	9B	Cucumber	0.055000	1.000	1.000
09011870	9A	Honeydew melon	0.137000	1.000	1.000
09023080	9B	Pumpkin	0.031000	1.000	1.000
09023090	9B	Pumpkin, seed	0.031000	1.000	1.000
09023560	9B	Squash, summer	0.031000	1.000	1.000
09023561	9B	Squash, summer-babyfood	0.031000	1.000	1.000
09023570	9B	Squash, winter	0.031000	1.000	1.000
09023571	9B	Squash, winter-babyfood	0.031000	1.000	1.000
09013990	9A	Watermelon	0.137000	1.000	1.000
09014000	9A	Watermelon, juice	0.137000	1.000	1.000
10001060	10	Citrus citron	0.208000	1.000	1.000
10001070	10	Citrus hybrids	0.208000	1.000	1.000
10001080	10	Citrus, oil	25.000000	1.000	1.000

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10001800	10	Grapefruit	0.120000	1.000	1.000
10001810	10	Grapefruit, juice	0.120000	0.100	1.000
10001970	10	Kumquat	0.208000	1.000	1.000
10001990	10	Lemon	0.176000	1.000	1.000
10002000	10	Lemon, juice	0.176000	0.100	1.000
10002001	10	Lemon, juice-babyfood	0.176000	0.100	1.000
10002010	10	Lemon, peel	0.176000	1.000	1.000
10002060	10	Lime	0.176000	1.000	1.000
10002070	10	Lime, juice	0.176000	0.100	1.000
10002071	10	Lime, juice-babyfood	0.176000	0.100	1.000
10002400	10	Orange	0.208000	1.000	1.000
10002410	10	Orange, juice	0.208000	0.100	1.000
10002411	10	Orange, juice-babyfood	0.208000	0.100	1.000
10002420	10	Orange, peel	0.208000	1.000	1.000
10003070	10	Pummelo	0.120000	1.000	1.000
10003690	10	Tangerine	0.208000	1.000	1.000
10003700	10	Tangerine, juice	0.208000	0.100	1.000
11000070	11	Apple, fruit with peel	0.203000	1.000	1.000
11000080	11	Apple, peeled fruit	0.203000	1.000	1.000
11000081	11	Apple, peeled fruit-babyfood	0.203000	1.000	1.000
11000090	11	Apple, dried	0.203000	8.000	1.000
11000091	11	Apple, dried-babyfood	0.203000	8.000	1.000
11000100	11	Apple, juice	0.203000	0.040	1.000
11000101	11	Apple, juice-babyfood	0.203000	0.040	1.000
11000110	11	Apple, sauce	0.203000	1.000	1.000
11000111	11	Apple, sauce-babyfood	0.203000	1.000	1.000
11001290	11	Crabapple	0.203000	1.000	1.000
11002100	11	Loquat	0.123000	1.000	1.000
11002660	11	Pear	0.123000	1.000	1.000
11002661	11	Pear-babyfood	0.123000	1.000	1.000
11002670	11	Pear, dried	0.123000	6.250	1.000
11002680	11	Pear, juice	0.123000	1.000	1.000
11002681	11	Pear, juice-babyfood	0.123000	1.000	1.000
11003100	11	Quince	0.123000	1.000	1.000
14000030	14	Almond	0.005000	1.000	1.000
14000031	14	Almond-babyfood	0.005000	1.000	1.000
14000040	14	Almond, oil	0.005000	1.000	1.000
14000041	14	Almond, oil-babyfood	0.005000	1.000	1.000
14000590	14	Brazil nut	0.007000	1.000	1.000
14000680	14	Butternut	0.007000	1.000	1.000
14000810	14	Cashew	0.007000	1.000	1.000
14000920	14	Chestnut	0.005000	1.000	1.000
14001550	14	Filbert	0.007000	1.000	1.000
14001560	14	Filbert, oil	0.007000	1.000	1.000
14001850	14	Hickory nut	0.007000	1.000	1.000
14002130	14	Macadamia nut	0.007000	1.000	1.000
14002690	14	Pecan	0.007000	1.000	1.000
14002820	14	Pistachio	0.005000	1.000	1.000
14003910	14	Walnut	0.007000	1.000	1.000
15000250	15	Barley, pearled barley	0.100000	1.000	1.000
15000251	15	Barley, pearled barley-babyfood	0.100000	1.000	1.000
15000260	15	Barley, flour	0.100000	1.000	1.000
15000261	15	Barley, flour-babyfood	0.100000	1.000	1.000
15000270	15	Barley, bran	0.100000	1.000	1.000
15001270	15	Corn, sweet	0.010000	1.000	1.000
15001271	15	Corn, sweet-babyfood	0.010000	1.000	1.000
15003280	15	Rye, grain	0.100000	1.000	1.000
15003290	15	Rye, flour	0.100000	1.000	1.000
15004010	15	Wheat, grain	0.100000	1.000	1.000
15004011	15	Wheat, grain-babyfood	0.100000	1.000	1.000
15004020	15	Wheat, flour	0.100000	1.000	1.000
15004021	15	Wheat, flour-babyfood	0.100000	1.000	1.000
15004030	15	Wheat, germ	0.100000	1.000	1.000
15004040	15	Wheat, bran	0.100000	1.000	1.000

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Attachment 4: DEEM-FCID™ Chronic Exposure Estimates

U.S. Environmental Protection Agency Ver. 2.00
DEEM-FCID Chronic analysis for DIFENOCONAZOLE (1994-98 data)
Residue file name: C:\Documents and Settings\tmorton\My Documents\MyFiles\Triazole Assessment for
Difenoconazole\difenoconazole_chronic-08-04AverageFT.R98

Adjustment factor #2 NOT used.

Analysis Date 08-04-2009/09:25:35 Residue file dated: 08-04-2009/09:25:01/8

Reference dose (RfD, Chronic) = .01 mg/kg bw/day

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Total exposure by population subgroup

Population Subgroup	Total Exposure	
	mg/kg body wt/day	Percent of Rfd
U.S. Population (total)	0.001694	16.9%
U.S. Population (spring season)	0.001674	16.7%
U.S. Population (summer season)	0.001745	17.5%
U.S. Population (autumn season)	0.001663	16.6%
U.S. Population (winter season)	0.001695	16.9%
Northeast region	0.001637	16.4%
Midwest region	0.001655	16.5%
Southern region	0.001596	16.0%
Western region	0.001943	19.4%
Hispanics	0.001618	16.2%
Non-hispanic whites	0.001612	16.1%
Non-hispanic blacks	0.001984	19.8%
Non-hisp/non-white/non-black	0.002404	24.0%
All infants (< 1 year)	0.002403	24.0%
Nursing infants	0.001269	12.7%
Non-nursing infants	0.002833	28.3%
Children 1-6 yrs	0.003727	37.3%
Children 7-12 yrs	0.001922	19.2%
Females 13-19 (not preg or nursing)	0.001220	12.2%
Females 20+ (not preg or nursing)	0.001479	14.8%
Females 13-50 yrs	0.001461	14.6%
Females 13+ (preg/not nursing)	0.001272	12.7%
Females 13+ (nursing)	0.001503	15.0%
Males 13-19 yrs	0.001494	14.9%
Males 20+ yrs	0.001372	13.7%
Seniors 55+	0.001564	15.6%
Children 1-2 yrs	0.004440	44.4%
Children 3-5 yrs	0.003593	35.9%
Children 6-12 yrs	0.002041	20.4%
Youth 13-19 yrs	0.001360	13.6%
Adults 20-49 yrs	0.001362	13.6%
Adults 50+ yrs	0.001538	15.4%
Females 13-49 yrs	0.001389	13.9%



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R178418

Chemical Name: Difenoconazole

PC Code: 128847

HED File Code: 14000 Risk Reviews

Memo Date: 9/22/2009

File ID: 00000000

Accession #: 000-00-0132

HED Records Reference Center
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